

Union Calendar No. 121

110TH CONGRESS
1ST SESSION

H. R. 2313

[Report No. 110–202]

To establish research, development, demonstration, and commercial application programs for marine renewable energy technologies.

IN THE HOUSE OF REPRESENTATIVES

MAY 15, 2007

Ms. HOOLEY introduced the following bill; which was referred to the Committee on Science and Technology

JUNE 21, 2007

Additional sponsors: Mr. ROHRABACHER, Mr. INSLEE, Mr. McDERMOTT, Mr. HONDA, Mr. DEFazio, Mr. BLUMENAUER, Ms. CASTOR, Mr. WU, and Mr. MILLER of North Carolina

JUNE 21, 2007

Reported with an amendment, committed to the Committee of the Whole House on the State of the Union, and ordered to be printed

[Strike out all after the enacting clause and insert the part printed in italic]

[For text of introduced bill, see copy of bill as introduced on May 15, 2007]

A BILL

To establish research, development, demonstration, and commercial application programs for marine renewable energy technologies.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 *This Act may be cited as the “Marine Renewable En-*
5 *ergy Research and Development Act of 2007”.*

6 **SEC. 2. FINDINGS.**

7 *The Congress finds the following:*

8 (1) *The United States has a critical national in-*
9 *terest in developing clean, domestic, renewable sources*
10 *of energy in order to reduce environmental impacts of*
11 *energy production, increase national security, im-*
12 *prove public health, and bolster economic stability.*

13 (2) *Marine renewable energy technologies are a*
14 *nonemitting source of power production.*

15 (3) *Marine renewable energy may serve as an al-*
16 *ternative to fossil fuels and create thousands of new*
17 *jobs within the United States.*

18 (4) *Europe has already successfully delivered*
19 *electricity to the grid through the deployment of wave*
20 *and tidal energy devices off the coast of Scotland.*

21 (5) *Recent studies from the Electric Power Re-*
22 *search Institute, in conjunction with the Department*
23 *of Energy’s National Renewable Energy Laboratory,*
24 *have identified an abundance of viable sites within*

1 *the United States with ample wave and tidal re-*
2 *sources to be harnessed by marine power technologies.*

3 *(6) Sustained and expanded research, develop-*
4 *ment, demonstration, and commercial application*
5 *programs are needed to locate and characterize ma-*
6 *rine renewable energy resources, and to develop the*
7 *technologies that will enable their widespread com-*
8 *mercial development.*

9 *(7) Federal support is critical to reduce the fi-*
10 *nancial risk associated with developing new marine*
11 *renewable energy technologies, thereby encouraging*
12 *the private sector investment necessary to make ma-*
13 *rine renewable energy resources commercially viable*
14 *as a source of electric power and for other applica-*
15 *tions.*

16 **SEC. 3. DEFINITIONS.**

17 *For purposes of this Act—*

18 *(1) MARINE RENEWABLE ENERGY.—The term*
19 *“Marine Renewable Energy” means energy derived*
20 *from one or more of the following sources:*

21 *(A) Waves.*

22 *(B) Tidal flows.*

23 *(C) Ocean currents.*

24 *(D) Ocean thermal energy conversion.*

1 (2) *SECRETARY.*—*The term “Secretary” means*
2 *the Secretary of Energy.*

3 **SEC. 4. MARINE RENEWABLE ENERGY RESEARCH AND DE-**
4 **VELOPMENT.**

5 (a) *IN GENERAL.*—*The Secretary, in conjunction with*
6 *other appropriate agencies, shall support programs of re-*
7 *search, development, demonstration, and commercial appli-*
8 *cation to expand marine renewable energy production, in-*
9 *cluding programs to—*

10 (1) *study and compare existing marine renew-*
11 *able energy extraction technologies;*

12 (2) *research, develop, and demonstrate advanced*
13 *marine renewable energy systems and technologies;*

14 (3) *reduce the manufacturing and operation*
15 *costs of marine renewable energy technologies;*

16 (4) *investigate efficient and reliable integration*
17 *with the utility grid and intermittency issues;*

18 (5) *advance wave forecasting technologies;*

19 (6) *conduct experimental and numerical mod-*
20 *eling for optimization of marine energy conversion*
21 *devices and arrays;*

22 (7) *increase the reliability and survivability of*
23 *marine renewable energy technologies, including de-*
24 *velopment of corrosive-resistant materials;*

1 (8) *study, in conjunction with the Assistant Ad-*
2 *ministrator for Research and Development of the En-*
3 *vironmental Protection Agency, the Undersecretary of*
4 *Commerce for Oceans and Atmosphere, and other*
5 *Federal agencies as appropriate, the environmental*
6 *impacts of marine renewable energy technologies and*
7 *ways to address adverse impacts, and provide public*
8 *information concerning technologies and other means*
9 *available for monitoring and determining environ-*
10 *mental impacts;*

11 (9) *establish protocols, in conjunction with the*
12 *National Oceanic and Atmospheric Administration,*
13 *for how the ocean community may best interact with*
14 *marine renewable energy devices;*

15 (10) *develop power measurement standards for*
16 *marine renewable energy;*

17 (11) *develop identification standards for marine*
18 *renewable energy devices;*

19 (12) *address standards development, demonstra-*
20 *tion, and technology transfer for advanced systems en-*
21 *gineering and system integration methods to identify*
22 *critical interfaces; and*

23 (13) *utilize marine resources in the Gulf of Mex-*
24 *ico, the Atlantic Ocean, and the Pacific Ocean.*

1 (b) *SITING CRITERIA.*—*The Secretary, in conjunction*
 2 *with other appropriate Federal agencies, shall develop,*
 3 *prior to installation of any technologies under this section,*
 4 *siting criteria for marine renewable energy generation dem-*
 5 *onstration and commercial application projects funded*
 6 *under this Act.*

7 **SEC. 5. NATIONAL MARINE RENEWABLE ENERGY RE-**
 8 **SEARCH, DEVELOPMENT, AND DEMONSTRA-**
 9 **TION CENTERS.**

10 (a) *CENTERS.*—*The Secretary, acting through the Na-*
 11 *tional Renewable Energy Laboratory, shall award grants*
 12 *to institutions of higher education (or consortia thereof) for*
 13 *the establishment of 1 or more National Marine Renewable*
 14 *Energy Research, Development, and Demonstration Cen-*
 15 *ters. In selecting locations for Centers, the Secretary shall*
 16 *consider sites that meet one of the following criteria:*

17 (1) *Hosts an existing marine renewable energy*
 18 *research and development program in coordination*
 19 *with a public university engineering program.*

20 (2) *Has proven expertise to support environ-*
 21 *mental and policy-related issues associated with har-*
 22 *nessing of energy in the marine environment.*

23 (3) *Has access to and utilizes the marine re-*
 24 *sources in the Gulf of Mexico, the Atlantic Ocean, or*
 25 *the Pacific Ocean.*

1 *The Secretary may give special consideration to historically*
2 *black colleges and universities and land grant universities*
3 *that also meet one of these criteria. In establishing criteria*
4 *for the selection of Centers, the Secretary shall coordinate*
5 *with the Undersecretary of Commerce for Oceans and At-*
6 *mosphere on the criteria related to advancing wave fore-*
7 *casting technologies, studying the compatibility with the en-*
8 *vironment of marine renewable energy technologies and sys-*
9 *tems, and establishing protocols for how the ocean commu-*
10 *nity best interacts with marine renewable energy devices*
11 *and parks.*

12 (b) *PURPOSES.*—*The Centers shall advance research,*
13 *development, demonstration, and commercial application of*
14 *marine renewable energy through a number of initiatives*
15 *including for the purposes described in section 4(1) through*
16 *(13), and shall serve as an information clearinghouse for*
17 *the marine renewable energy industry, collecting and dis-*
18 *seminating information on best practices in all areas re-*
19 *lated to developing and managing enhanced marine renew-*
20 *able energy systems resources.*

21 (c) *DEMONSTRATION OF NEED.*—*When applying for a*
22 *grant under this section, an applicant shall include a de-*
23 *scription of why Federal support is necessary for the Center,*
24 *including evidence that the research of the Center will not*
25 *be conducted in the absence of Federal support.*

1 **SEC. 6. APPLICABILITY OF OTHER LAWS.**

2 *Nothing in this Act shall be construed as waiving the*
3 *applicability of any requirement under any environmental*
4 *or other Federal or State law.*

5 **SEC. 7. AUTHORIZATION OF APPROPRIATIONS.**

6 *There are authorized to be appropriated to the Sec-*
7 *retary to carry out this Act \$50,000,000 for each of the fis-*
8 *cal years 2008 through 2012, except that no funds shall be*
9 *appropriated under this section for activities that are re-*
10 *ceiving funds under section 931(a)(2)(E)(i) of the Energy*
11 *Policy Act of 2005 (42 U.S.C. 16231(a)(2)(E)(i)).*

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